

When Outsourcing is Smart Sourcing

By Hemant Maru

Outsourcing a digital imaging network can free health care providers to focus on health care.

IN AN AGE of digital imaging modalities, and with rising competition among health care providers, networks offer enormous advantages to those providing radiology and health imaging services. Studies can be conducted in one location, read at a second location and archived at a third site—all with lightning speed. Radiologists can access images from the digital archive in seconds, rather than searching endlessly for film.

But how can health care providers bring about this miracle? By taking the time to learn about networking themselves? By assuming the continuing costs of an IT/engineering staff to install and maintain the network?

Doshi's Solution

At New York-based Doshi Diagnostic Imaging Services, we found a better solution: outsourcing. In virtually every industry today, businesses are deciding to outsource tasks that are not considered “core competencies.” Letting specialists, such as Kodak Imaging Network Services, manage these tasks controls costs, because experts can manage them more efficiently and take advantage of economies of scale. Outsourcing also enables organizations to focus their attention on customers and mission-critical business issues.

Radiologic networking is a prime example of an important tool that clearly falls outside the core competency of radiology professionals, which is why we brought in imaging network experts to help. They studied our current and future imaging needs and provided us with a total network solution tailored to those needs.

This extensive network ties together seven imaging centers located throughout the metropolitan New York area, and our adminis-



trative headquarters in Hicksville, N.Y. It provides an integrated workflow for virtually every imaging modality we employ: from MRI and CT scanning to computed radiography, nuclear cardiology, cardiac stress testing, sonography, echocardiography, vascular duplex imaging and bone densitometry. Some fluoroscopy, mammography and sonography procedures are acquired and processed offline.

Parting With the Past

In the past, Doshi Diagnostics was rapidly becoming a victim of its own success. We had grown rapidly, and were conducting more than 140,000 procedures per year. Routing films to one of our 11 radiologists and moving films from one location to another to balance the workload was a growing challenge. Films were delayed in transit, temporarily mislaid, and occasionally even lost. Turnaround times stretched out and customer service suffered.

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The network has solved those problems. Now when studies are done, they travel from the imaging modality to a network router, which sends the digital image files simultaneously to two locations over T1 lines: to a PACS workstation for interpretation, and to our central archive in Hicksville. The PACS workstation may be located in the same building where the procedure was done, or it may be at any of our other locations, wherever workload requires or specific expertise exists. Radiologists no longer travel to where the film is, or vice versa. Instead, we identify the most appropriate radiologist to read a particular exam and the network sends the images to him or her.

The radiologist interprets the images, dictates a report, and deletes the study from the workstation. Report turnaround time is 24 hours or less. Referring physicians can also call in for an oral report immediately following the procedure in critical cases. Soon our network will be able to forward images to leading research institutions, further improving our access to the best medical expertise.

Design and Implementation

Designing and implementing the network was an eight-month task. Our vendor studied our operations, planned the network, negotiated with the telecommunications provider, managed the installation process (one office at a time), and trained Doshi personnel to use the network. They also continue to maintain the network to ensure reliable operations.

Since the network was first installed, our volume has grown some 40 percent to more than 225,000 procedures annually. The digital linear tape archive installed provides enough capacity to store three years worth of data. When our existing archive approaches capacity, we will simply add a second archive, daisy-chained to the first.

Film is no longer an issue for most patients or procedures. On the rare occasions when patients need film for referring physicians, we can arrange to print images from any workstation on our network to any networked laser printer throughout our system. We maintain one laser printer at each location for this purpose.

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Doshi Diagnostic Imaging Services has always taken pride in providing the finest radiological services, based both on the quality of the images we produce and the manner in which we deliver information to patients and physicians. Our digital imaging network plays a crucial role in maintaining and enhancing the level of service we provide to both referring physicians and patients. Our decision to outsource its implementation is validated each and every day.

Hemant Maru is director of finance and budgeting for Doshi Diagnostic Imaging Services. Doshi was founded in 1985 by Leena Doshi, MD, who continues as its medical director. The company employs 11 radiologists and operates imaging centers in Flushing, Jackson Heights, Bensonhurst, Mill Basin, Forest Hills, Bayridge, Downtown Brooklyn, and Lower Manhattan.